

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Patent Application of: Lucille Beaudet et al.

Application No.: 10/563,047

Confirmation No.: 6066

Filed: July 2, 2004

Art Unit: 1797

For: SCINTILLATOR COMPOSITION FOR A  
RADIOASSAY, AND METHOD FOR ITS USE

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Examiner: X. Xu

**APPELLANT'S REPLY BRIEF**

Mail Stop Appeal Brief  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the new grounds of rejection discussed in the Examiner's Answer mailed June 22, 2010, Appellant hereby submits its Reply Brief.

The Examiner's answer indicates that "new grounds of rejection (if any) are provided under the subheading 'NEW GROUNDS OF REJECTION.'" Although no such subheading was found, section 11 entitled "Related Proceeding(s) Appendix" indicates that "a new ground of rejection [is] set forth in section (9)..." While the remarks in section 9 encompass approximately six pages, the new material appears to be limited to remarks found on page 4, 3<sup>rd</sup> full paragraph – page 5, line 4; page six, 5<sup>th</sup> full paragraph – page 7, line 2; and page 7, 3<sup>rd</sup> full paragraph.

Remarks found on page 4, 3<sup>rd</sup> full paragraph – page 5, line 4 of the Examiner's answer appear to contain only a reiterated assertion of inherency, pointing to the Franks et al reference for support.

In particular, it is asserted that "[a]s shown by Franks, the fluorescent emission of the first scintillator material (Coumarin 540 with a pseudo-cumene as a solvent) has a fluorescent emission of 480, 485, 495, 500 nm, respectively (see Table 1) and the emission wavelength of Coumarin 540 and BIBUQ is 485, 490, 500 nm, respectively (see Table 1.)"


As previously noted, Appellant submits that Table 1 of the Franks reference actually shows a much greater variability of fluorescent emission wavelengths for these materials than is acknowledged by the Examiner. Specifically Table 1 discloses emission wavelengths of 480 – 530 nm for Coumarin 540A with pseudo-cumene as a solvent; 540 – 570 nm for Coumarin 540A with benzyl alcohol as a solvent; and 485 – 520 nm for the ternary liquid scintillator including BIBUQ as a primary scintillator, Coumarin 540A as a second scintillator and pseudo-cumene as a solvent. Figures 2 and 3 of Franks et al. also appear to show wide variability of fluorescent emission wavelengths for these materials. The emission of this substance appears to change substantially depending on the environment.

Remarks found on page six, 5<sup>th</sup> full paragraph – page 7, line 2 of the Examiner's answer slightly re-words the previous assertions that substitution of one secondary scintillator material for another is a "simple substitution of one known element...for another...to obtain predictable results." Appellant reiterates that, as detailed above, Table 1 of Franks indicates that scintillator systems including different solvents and scintillators have widely varying fluorescence emission characteristics. Appellant submits that one of skill in the art would have no guidance from the cited references in regard to the particular combinations described have fluorescent emission in the range of 460-500 nm since the references teach variability of fluorescent emission characteristics.

Remarks found on page 7, 3<sup>rd</sup> full paragraph of the Examiner's answer include the assertion that "the wavelength of fluorescence emission is an inherent property of a scintillator compound and its environment should have limited effect on the wavelength of the fluorescence emission." Again, this is in contrast to evidence shown in the Franks et al. reference indicating that emission characteristics appear to change substantially depending on the solvent. Appellant submits that one of skill in the art would have no guidance from the cited references in regard to the particular combinations described have fluorescent emission in the range of 460-500 nm since the references teach variability of fluorescent emission characteristics.

Respectfully submitted,

By: \_\_\_\_\_

  
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Date: August 23, 2010

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